In this paper, I empirically examine the effects of uncertainty about government spending policy on economic activity using U.S. time series data. To this end, I constructed government spending policy uncertainty indexes and estimate a proxy SVAR model. The proxy SVAR model with constructed indexes shows that an increase in government spending policy uncertainty has negative, sizable, and prolonged effects on economic activity. Moreover, the results imply that the commonly adopted recursive SVAR model in literature on policy uncertainty systematically underestimates the adverse effect of government spending policy uncertainty because of the endogeneity issue.
The Korea Institute for International Economic Policy (KIEP) was founded in 1990 as a government-funded economic research institute. It is a leading institute concerning the international economy and its relationship with Korea. KIEP advises the government on all major international economic policy issues and serves as a warehouse of information on Korea’s international economic policies. Further, KIEP carries out research by request from outside institutions and organizations on all areas of the Korean and international economies by request.

KIEP possesses highly knowledgeable economic research staff. Our staff includes many research fellows with PhDs in economics from international graduate programs, supported by dozens of professional researchers. Our efforts are augmented by our affiliates, the Korea Economic Institute of America (KEI) in Washington, D.C. and the KIEP Beijing office, which provide crucial and timely information on local economies. KIEP has been designated by the government as its Center for International Development Cooperation and the National APEC Study Center. KIEP also maintains a wide network of prominent local and international economists and business people who contribute their expertise on individual projects.

KIEP continually strives to increase its coverage and grasp of world economic events, and expanding cooperative relations has been an important part of these efforts. In addition to many joint projects in progress KIEP is aiming to become a part of a broad but close network of the world’s leading research institutes. Considering the rapidly changing economic landscape of Asia, which is leading to further integration of the world’s economies, we are confident that KIEP’s win-win proposal for greater cooperation and sharing of resources and facilities will increasingly become standard practice in the field of economic research.

HYUN Jung Taik
President

Call for Papers for the

East Asian Economic Review

With great pleasure, the East Asian Economic Review is welcoming submissions.

AIMS and SCOPE

The East Asian Economic Review is an economic journal, for the promotion of interdisciplinary research on international economics. Published as a quarterly by the Korea Institute for International Economic Policy, a Korean government-funded economic think-tank, the Journal is global in perspective and covers both theory and empirical research.

The Journal aims to facilitate greater understanding of all issues pertinent to diverse economies of East Asia through publication of rigorous analyses by renowned experts in the field. The EAER connects policy and theory, providing empirical analyses and practical policy suggestions for the economies in the region.

TOPICS COVERED

The East Asian Economic Review brings together articles from many different realms of economics at both regional and global levels. Issues relevant to East Asia’s diverse economy are the major focus. Specific areas of interest include, but are not limited to:

- Trade and Investment Issues
- Economic Integration
- APEC
- ASEAN
- International Finance
- Liberalization of Financial Services and Capital
- International Cooperation for Korean Unification

AWARD FOR EAER

The East Asian Economic Review Award is given annually to articles that have made exemplary contributions to advance the public as well as academic understanding of international economics. Every article published in the journal is given an honorarium of KRW 2,500,000, and annual nominations for the outstanding and noteworthy articles include KRW 5,000,000 prize and a detailed nomination statement describing how the selected papers have contributed to the knowledge of international economics.
Government Spending Policy
Uncertainty and Economic Activity:
U.S. Time Series Evidence

KIM Wongi
Executive Summary

In this paper, I empirically examine the effects of uncertainty about government spending policy on economic activity using U.S. time series data. To this end, I constructed government spending policy uncertainty indexes and estimate proxy SVAR model. Proxy SVAR model with constructed indexes shows that an increase in government spending policy uncertainty has negative, sizable, and prolonged effects on economic activity. Moreover, the results imply that the commonly adopted recursive SVAR model in literature on policy uncertainty systematically underestimates the adverse effect of government spending policy uncertainty because of the endogeneity issue. One policy suggestion based on the empirical finding is clear announcement of future government spending path.

**Keywords**: Policy Uncertainty, Government Spending Policy Uncertainty Index, Government Spending Policy Uncertainty Shock, Proxy SVAR

**JEL Classification**: C32, E32, E62
KIM Wongi

Associate Research Fellow at the Korea Institute for International Economic Policy (KIEP). He received his Ph.D in Economics in 2015 from the Texas A&M University. His research interests include macroeconomics and financial economics.
CONTENTS

Executive Summary ................................................................. 3
Contributor .......................................................................... 4
1. Introduction .................................................................... 7
2. Literature ......................................................................... 11
4. Econometric Method and Data .............................................. 18
5. Results ............................................................................ 23
6. Discussion ......................................................................... 30
7. Concluding Remarks .......................................................... 33
Appendix ............................................................................ 34
References ........................................................................... 35
Tables

Table 1. Marginal F-Statistics for the IV Relevance Test .............................................. 20
Table 2. Data Description .................................................................................. 21

Figures

Figure 1. Government Spending Uncertainty Index and Federal Government Shutdown Episode ........................................................................................................ 15
Figure 2. Government Spending Uncertainty Index and NBER Recession Indicator .......... 16
Figure 3. Government Spending Uncertainty Index and War dates ................................ 17
Figure 4. Impulse Response of GDP to Government Spending Uncertainty Index: 2-Variable VAR ........................................................................................................ 23
Figure 5. Impulse Response of GDP to Government Spending Uncertainty Index: the Extended VAR .......................................................................................... 25
Figure 6. Impulse Response of GDP to Government Spending Uncertainty Index: Comparison ............................................................................................................ 26
Figure 7. Impulse Response of other Variables: the Extended VAR with Disagreement Index ............................................................................................................. 28
Figure A. 1. Defense News and government spending uncertainty index ..................... 34
I. Introduction

What are the macroeconomic consequences of fiscal policy uncertainty? Recently, many economists and policy makers are concerned about the adverse effects that uncertainty in fiscal policy has on economic activity. In the U.S., for example, the debt-ceiling crisis and the federal government shutdown have elevated government spending policy uncertainty and people are concerned about consequent adverse effects. In Europe, people are concerned about uncertainty in the future path of spending and tax policy, due to the escalated government debt level after the European debt crisis. Recently, uncertainty about the timing of a consumption tax hike and consequent changes in private consumption is one of the big issues in Japan.

This paper seeks to discover how large such adverse effects of fiscal policy uncertainty, especially government spending policy uncertainty, are and what

---

* I thank Ju-Hyun Pyun, Kyunghun Kim, and the two anonymous referees for their helpful comments and suggestions. All remaining errors are my own.
‡ Department of Europe, Americas and Eurasia, Korea Institute for International Economic Policy, 370 Sicheongdaero, Sejong 339-007, Korea; Tel: 82-44-414-1109, Email wgkim@kiep.go.kr.
the transmission channels are. To this end, I construct new government spending policy uncertainty indexes, which can potentially capture a level of government spending policy uncertainty, and estimate a proxy structural vector autoregression (SVAR) model with those indexes and U.S. time series.

I construct two government spending policy uncertainty indexes based on well-known uncertainty measures: the forecasting disagreement measure provided by the Federal Reserve Bank of Philadelphia (hereafter the Philadelphia Fed) and the uncertainty index constructed by Baker et al. (2015). The forecasting disagreement measure has long been adopted in literature to measure a rise and a fall of uncertainty level after Bomberger’s (1996) pioneering work. The Philadelphia Fed provides a measure of forecasters’ disagreement on the U.S. federal government consumption and investment, based on its Survey of Professional Forecasters (SPF). This measure potentially captures uncertainty about the future path of the U.S. federal government spending policy. Also, Baker et al.’s (2015) uncertainty index has been widely adopted in recent studies on policy uncertainty such as Fernandez-Villaverde et al. (2015). They provide not only the entire economic policy uncertainty (EPU) index which consists of several policy uncertainty measures but also a sub-index which focuses on specific policy uncertainty such as government spending policy uncertainty. This sub-index on government spending policy uncertainty is constructed based on how frequently uncertainty-related-terms appear in several newspapers and it can also be a potential measure of government spending policy uncertainty.

Next, I estimate a proxy SVAR model with constructed indexes and standard macroeconomic variables. The proxy SVAR method developed by Stock and Watson (2012) and Mertens and Ravn (2013) uses external information to identify an exogenous shock. This method is widely adopted in several recent studies such as Gertler and Karadi (2015). To isolate an exogenous part of government spending policy uncertainty index, I use defense news constructed by Ramey (2011) and updated by Ramey and Zuabiry (2014) as an instrumental variable. Defense news, which is identified through its method of narration, captures changes in the U.S. federal government’s military spending induced by
overseas war or purely political events. Thus defense news is unlikely to be related to U.S. domestic economic conditions. Furthermore, this defense news possibly works as a forward guidance of future government spending because defense news contains information on the future path of government spending and therefore it possibly affects uncertainty about future government spending, especially in the case of disagreement among professional forecasters.

The main findings can be summarized as follows. The first is that government spending policy uncertainty has prolonged negative effects on economic activity and those negative effects are not negligible. An exogenous increase in government spending policy uncertainty reduces GDP, private consumption, investment, labor hour, and real wage, but increases inflation. Those results are similar to the dynamic stochastic general equilibrium (DSGE) model’s predictions in Born and Pfeifer (2014). The second is that usual recursive VAR, which is widely used in literature on policy uncertainty such as Baker et al. (2015), tends to underestimate the adverse effects of spending policy uncertainty due to the endogeneity issue. The results with recursive VAR suggest that the effects of spending policy uncertainty on economic activity are small and even positive. As pointed out by Ludvigson et al. (2015), however, recursive VAR can suffer from the endogeneity issues. Proxy SVAR does not suffer from this endogeneity bias because proxy SVAR isolates exogenous shock by using an exogenous instrument variable, not by ordering assumption in a recursive VAR model.

Several studies such as Davig and Forerster (2014), Born and Pfeifer (2014), and Fernandez-Villaverde et al. (2015) shed light on the effects of fiscal policy uncertainty on economic activity mainly with calibrated or estimated DSGE model.¹ Though they provide good insights on the macroeconomic consequence of fiscal policy uncertainty, they do not solely focus on government spending policy uncertainty.² Furthermore, I use a more data-driven method

¹ Fernandez-Villaverde et al. (2015) use a recursive VAR model to study capital tax policy uncertainty.
² Davig and Foster (2014) and Fernandez-Villaverde et al. (2015) focus on uncertainty about tax policy.
while they use a structural model. Most significantly, I develop a new empirical strategy to identify government spending policy uncertainty shock.

The remaining of this paper is structured as follows: Section 2 briefly introduces related literature and Section 3 provides detailed explanation about how to construct government spending policy uncertainty indexes. In Section 4, I briefly explain the proxy SVAR that I employ, data set, and other econometric issues. Section 5 provides empirical results and Section 6 discusses the empirical results and policy implications. Section 7 concludes.
2. Literature

Uncertainty has attracted renewed attention after the 2008 financial crisis and the Great Recession. Bloom (2009) shows that uncertainty harms economic activity through several channels such as the wait-and-see option channel and the precautionary saving motive using the empirical and the theoretical model. Baker et al. (2012) and Lo and Rogoff (2015) claim that uncertainty is one of the reasons for sluggish recovery in advanced and emerging countries after the 2008 financial crisis. After those pioneering works, several studies have tried to show how uncertainty impacts economic activity.

One strand of literature on uncertainty focuses on how overall economic uncertainty affects economic activity. For example, Baker and Bloom (2013) show that an increase in stock price volatility as a measure of overall economic uncertainty damages economic growth using country panel data and the two stage least square method. Leduc and Liu (2016) show that an increase in VIX raises unemployment and lowers inflation using recursive VAR and DSGE model. Fernández-Villaverde et.al (2011) also show that uncertainty measured by time-varying volatility harms economic activity especially in emerging markets using estimated small open economy DSGE model. Those works shows that overall economic uncertainty, which is usually measured by financial market volatility, affects the economy negatively.

Another strand of literature focuses on the effects of economic policy uncertainty. Baker et al. (2015) develop their EPU index based on their news-based method and shed light on the negative effects of overall economic policy uncertainty on the economy. Brogaard and Detzel (2015) investigate how economic policy uncertainty measured by the news-based method similar to Baker et al. (2015) affects asset returns using 21 countries panel data. Those studies try to capture the effects of overall economic policy uncertainty, but some research focuses on specific policy. For instance, Mumtaz and Zanetti (2013) focus on monetary policy uncertainty. They show that monetary policy uncertainty measured by time-varying volatility of monetary policy shock harms economic
activity using structural VAR model and U.S. data. Handley (2014) investigates the effects of trade policy uncertainty on firms’ exporting behavior using panel data analysis. Born and Pfeifer (2014) show that monetary and fiscal policy uncertainty measured by time-varying volatility are not the major source of business fluctuation through an estimated New Keynesian model. In contrast to Born and Pfeifer (2014), Fernández-Villaverde et al. (2015) show that capital tax uncertainty reduces output, private consumption and investment at least in the short-run through their VAR analysis. Furthermore, they provide theoretical transmission channels through the estimated DSGE model. In their DSGE model, most of output decline in response to capital tax policy uncertainty is accounted for by a drop in investment. Households do not want to increase their investment because of the probability of a higher future capital tax rate. Also, the precautionary saving motive in response to heightened future uncertainty. Those two channels mainly reduce private consumption and investment and therefore output drops.

Though several studies focus on the effects of economic uncertainty and economic policy uncertainty, research on fiscal policy uncertainty, especially government spending policy uncertainty, are sparse and have not reached consensus yet. Ricco et al. (2016) study how effects of government spending depend on a government spending policy uncertainty level using a nonlinear VAR model. However, they do not focus on the effects of government spending policy uncertainty itself. Davig and Foerster (2014) focus on the effects of uncertainty about future tax policy using a calibrated DSGE model. Johannsen (2014) emphasizes the role of zero lower bound of monetary policy to generate large adverse effects of fiscal policy uncertainty with a New Keynesian DSGE model. Born and Pfeifer (2014) and Fernández-Villaverde et al. (2015) focus on uncertainty about fiscal policy including government spending policy, but they reach opposite conclusions: while Born and Pfeifer (2014) claim that the effects of fiscal policy uncertainty are negligible, Fernández-Villaverde et al. (2015) do not. Thus this research, which focuses on government spending policy uncertainty and employs a data-driven VAR method, can complement previous studies and fill the research gap.

The aim of this paper is to examine the quantitative effects of uncertainty on government spending policy uncertainty on economic activity. To this end, I construct indexes to measure a level of government spending policy uncertainty. This chapter describes the process for constructing those government spending policy uncertainty indexes and discusses how well those indexes capture a rise and a fall in government spending policy uncertainty.

The indexes that I construct in this paper are based on two measures: the forecasting disagreement measure on the four-quarter ahead real federal government spending growth rate provided by the Philadelphia Fed and the government spending policy uncertainty measure provided by Baker et al. (2015). In the Philadelphia Fed’s SPF, professional forecasters have reported their four-quarter ahead forecasting values about the growth rate of the real federal government consumption and gross investment from Q1 1981 to the current period. The Philadelphia Fed computes difference between upper 25% forecasting value and lower 25% forecasting value and provides that as the cross-sectional dispersion measure. This type of cross-sectional dispersion measure has long been adopted in literature to measure a level of uncertainty. For example, one component of the EPU index constructed by Baker et al. (2015) is the forecasting disagreement measure in the SPF. Also, Bomberger (1996), Boero et al. (2008), Dovern et al. (2012), and Bachmann et al. (2013) show that forecasting dispersion measures are useful to capture a level of uncertainty. Especially, Ricco et al. (2016) construct their fiscal policy uncertainty measure based on the cross-sectional dispersion measure computed with the SPF. In line with those

---

3 In the SPF, forecasters have reported their forecast values about the level and the growth rate of 32 macroeconomic variables such as GDP, unemployment, inflation, housing price indexes and interest rates. They have reported their forecasting values for the current quarter and up to four quarters ahead.

4 The fiscal policy uncertainty index in Ricco et al. (2016) is constructed based on the standard
studies, I use the forecasting disagreement measure on federal government spending as a component of government spending policy uncertainty index.

The second component that I use is the government spending policy uncertainty measure used in Baker et al. (2015). They provide the government spending policy uncertainty measure based on their method from 1985 to present. Basically, they count how frequently terms related to uncertainty in government spending policy, such as "federal government spending policy uncertainty” and "state government spending policy uncertainty,” appear in several newspapers. The more frequent such terms appear in newspapers, the higher we can consider that uncertainty prevails in government spending policies. This type of uncertainty measure is also widely adopted in various studies on policy uncertainty such as by Fernandez-Villaverde et al. (2015) and Brogaard and Detzel (2015).

Based on those two measures, I construct two different uncertainty indexes. The first one is the normalized SPF dispersion measure with the standard score method (hereafter the disagreement index). The second one is the average of disagreement index and normalized Baker et al.’s (2015) government spending policy uncertainty measure with the same method for disagreement index (hereafter the combined index). Normalization enables me to directly compare a level of government spending policy uncertainty between those two indexes. The advantage of the disagreement index is that the SPF measure is directly related to the federal government spending policy. The defense news that I use as the instrumental variable in the empirical analysis mainly covers the federal government military spending. For the relevance of the instrumental variable, it is important that the uncertainty index is directly related to the federal government spending policy. However, the government spending policy uncertainty is not only related to the federal government spending but also to the local and the state government spending. Thus, the relevance to defense news may become lower with Baker et al.’s (2015) measure. However, the combined index has an advantage. Though cross-sectional dispersion is widely adopted as a deviation as a dispersion measure. Standard deviation is a useful indicator to capture cross-sectional dispersion measure, but it can be severely affected by outliers.
proxy of uncertainty, some studies such as Lahiri and Sheng (2010) claim that forecasting disagreement measures are not sufficient or proper variables to capture a level of uncertainty since forecasters’ disagreement depends on idiosyncratic component, not on economic fundamentals. The combined index can avoid this critique by adding another uncertainty measure.\(^5\) Furthermore, I can check the robustness of empirical results with two different indexes.

**Figure 1. Government Spending Uncertainty Index and Federal Government Shutdown Episode**

Note: Figure by the author. Dashed line indicates the disagreement index. Solid line means the combined index. Shaded area means NBER recession periods. The combined index starts Q1 1985 due to data availability. Source: Figure by the author.

Figure 1 shows the time series plot of two indexes and federal government shutdown and the debt ceiling crisis events as important fiscal related events.\(^6\) The federal government shutdown tends to increase people’s concern about the future paths of government spending. Thus, if indexes well capture future un-

---

\(^5\) Basically, the EPU index in Baker *et al.* (2015) is constructed based on this averaging of normalized uncertainty measures.

\(^6\) Due to the data availability of Baker *et al.* (2015)’s measure, combined index starts from the first quarter of 1985.
certainty about government spending, indexes should rise around those events. As shown in Figure 1, the indexes seem to well capture future uncertainty caused by shutdown and the debt ceiling. For example, both indexes skyrocket around the mid 1987’s shutdown event, the recent debt-ceiling crisis around 2011 and 2013, and the shutdown in 2013.

**Figure 2. Government Spending Uncertainty Index and NBER Recession Indicator**

Note: Dashed line indicates the disagreement index. Solid line means the combined index. Shaded area means NBER recession periods. The combined index starts Q1 1985 due to data availability.
Source: Figure by the author.

Furthermore, uncertainty about the future path of government policy tends to increase in recession because government spending is one of the policy tools used to adjust business fluctuations. Figure 2 shows the time series plot of the indexes and NBER recession periods. As we can see in Figure 2, the indexes tend to rise during recession periods such as the recession in 1981 and that caused by the Financial Crisis.

Additionally, Figure 3 shows the two indexes and two major war events: the Gulf War and 9/11 attack. As shown in previous literature such as Baker and Bloom (2013), uncertainty tends to rise around war events or terrorist attack.
Figure 3 shows that the indexes constructed here seem to well capture this pattern. The Gulf War at the beginning of 1990s and the 9/11 terrorist attack in 2011 raise the indexes.

Overall, the two indexes constructed here – the disagreement and combined indexes – seem to be potential measures of a level of the government spending uncertainty and to well capture the rise and a fall of government spending policy uncertainty caused by various reasons.

Note: Blue line indicates the disagreement index. Gray line means the combined index. Shaded bar means Gulf War and 9-11 attack. The combined index starts Q1 1985 due to data availability.

Source: Figure by the author.
4. Econometric Method and Data

This chapter describes the empirical method which I employ, details about the dataset, and other econometric issues. The econometric method that I use is proxy SVAR developed by Stock and Watson (2008), and Mertens and Ravn (2013). The proxy VAR model uses an external instrument variable to identify an exogenous shock, which is somewhat different from traditional SVAR model with recursive ordering identification or sign restrictions. In recent days, this method is widely adopted in several time series studies. Here, I provide a brief explanation on the simplest case.

Consider the following simple 2 variables reduced form VAR system.

\[
\begin{bmatrix}
U_t \\
Y_t
\end{bmatrix} = \begin{bmatrix}
A_{11}(L) & A_{12}(L) \\
A_{21}(L) & A_{22}(L)
\end{bmatrix} \begin{bmatrix}
U_t \\
Y_t
\end{bmatrix} + \begin{bmatrix}
\varepsilon_{Ut} \\
\varepsilon_{Yt}
\end{bmatrix}
\]  

(1)

\(U_t\) is uncertainty index which is a potential measure of a level of government policy uncertainty at time \(t\), \(Y_t\) is output, and \(A(L)\) is a lag operator. \(\varepsilon_{Ut}\) and \(\varepsilon_{Yt}\) are the reduced form residuals from each equation. Let \(\eta_{Ut}\) be a structural shock of uncertainty which we are interested in. The goal of the identification strategy is to find a mapping from this reduced form residual(\(\varepsilon\)) to a structural shock(\(\eta\)). Under usual normalization and assumption on the covariance matrix of structural shock, we get the following relation.

\[
\begin{bmatrix}
\varepsilon_{Ut} \\
\varepsilon_{Yt}
\end{bmatrix} = \begin{bmatrix}
1 & b_{12} \\
b_{21} & 1
\end{bmatrix} \begin{bmatrix}
\eta_{Ut} \\
\eta_{Yt}
\end{bmatrix}
\]  

(2)

How do we find the mapping \((b_{12}, b_{21})\) in equation (2)? There are several ways to find it. For example, the recursive structure simply assumes \(b_{12} = 0\).

---

8 Detailed discussions are provided in Stock and Watson (2008), Mertens and Ravn (2013), and Ramey (2016).
Then we can get the unbiased estimated $b_{21}$ with Cholesky decomposition. In proxy VAR, the information from an external instrument variable is utilized. Suppose that $Z_t$ satisfies the following two conditions.

\begin{align*}
    E[Z_t \eta_{Ut}] &\neq 0 \quad (3) \\
    E[Z_t \eta_{Yt}] &= 0 \quad (4)
\end{align*}

Those two conditions are similar to the usual conditions that any instrumental variables should satisfy. Equation (3) means that $Z_t$ should be contemporaneously correlated with a structural uncertainty shock that we are interested in. Equation (4) indicates that $Z_t$ should be independent to other structural shock contemporaneously. If we can find $Z_t$, it is straightforward to identify $b_{12}, b_{21}$ with the following 3 steps.

Step 1. Estimate reduced form VAR model (equation (1)) and get residual $\varepsilon$.

Step 2. Regress $\varepsilon_{Yt}$ on $\varepsilon_{Ut}$ with $Z_t$ as an instrument. We get the unbiased estimate of $b_{21}$ by this regression. Let the residual of this regression be $\nu_t$.

Step 3. Regress $\varepsilon_{Ut}$ on $\varepsilon_{Yt}$ with $\nu_t$ as an instrument. We get the unbiased estimate of $b_{12}$ by this regression.

Intuitively, the reduced form innovation $\varepsilon_{Ut}$ consists of two parts: structural uncertainty shock and another structural shock. Because the instrument $Z_t$ is only correlated to structural uncertainty shock, we can isolate structural uncertainty shock part from reduced form innovation $\varepsilon_{Ut}$ through some regression technique. Furthermore, this system and the identification strategy can be easily extended for VAR with additional variables unless the condition (3) and (4) are violated.

In the estimation, I use defense news constructed by Ramey (2011) and updated by Ramey and Zubairy (2014) as an instrumental variable for government spending uncertainty indexes. Defense news, which is identified by reading several newspapers, captures rises and falls of the U.S. federal government’s mili-
itary spending induced by oversea war events such as the Gulf War, terrorist attacks such as the 9/11 attack, and purely political events. Thus defense news is unlikely related to U.S. domestic economic conditions. Furthermore, this defense news possibly works as a forward guidance of future government spending because defense news contains information on future government spending paths and therefore it possibly affects uncertainty about future government spending, especially in the case of disagreement among professional forecasters.

It is important how closely the defense news is correlated to government spending policy uncertainty to avoid the weak IV problem. To test the relevance of defense news as an instrument, I conduct the formal first-stage F-test similar to Stock and Watson (2008) and Ramey (2011).

<table>
<thead>
<tr>
<th>Table 1. Marginal F-Statistics for the IV Relevance Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Variables Model</td>
</tr>
<tr>
<td>Disagreement Index</td>
</tr>
<tr>
<td>Combined Index</td>
</tr>
</tbody>
</table>

Note: 2-variables model includes constant, four lags of log of real per capita GDP and the uncertainty index. The extended model includes constant, two lags of log of real per capita GDP, log of real per capita consumption, log of real per capita gross fixed investment, (shadow) federal funds rate and the uncertainty index. Note that Stock and Yogo (2005)’s criteria is 16.38 and Luis et al. (2013)’s criteria is 23.11 at 10% level

Source: Stock and Yogo (2015); Luis et al. (2013).

Table 1 summarizes the result. All marginal F-statistics are well above the rule-of-thumb level 10 suggested by Staiger and Stock (1997). Moreover, the result from the 2-variable model with disagreement measure is well above the criteria (10% level) suggested by Stock and Yogo (2005) and Montiel Olea and Pueger (2013). Generally, the results show that the defense news is a proper instrument for the estimation.

The data that I use consists of standard macroeconomic data. Nominal

---

9 Montiel Olea et al. (2012) point out that some inference and consistency problems in proxy VAR model with weak instrumental variables.
GDP, private consumption, private investment, the federal government consumption and investment are acquired from Bureau of Economic Analysis (BEA). Those are transformed to real per capita term divided by population and GDP deflator. Population data is from BEA and GDP deflator, labor hours, wage, mark-up data are acquired from the St. Louis Fed. Labor hours are transformed to per capita term divided by population, and wage data is transformed to real term divided by GDP deflator. The mark-up is measured by inverse value of the labor share following Christiano et al. (2005). The definition of variables are almost the same as in Christiano et al. (2005) and Fernandez-Villaverde et al. (2015). Moreover, shadow federal fund rate is provided by the Atlanta Fed and the defense news is from Ramey’s website. Data span is dictated by availability of defense news and Baker et al. (2015)’s government spending policy uncertainty index. Most of the data starts from Q3 1981 and ends Q3 2015 except for Baker et al. (2015)’s index. Also, I take average value of the monthly frequency data such as Baker et al.’s (2015) index and shadow rate in each quarter. Table 2 provides detailed data sources and periods covered.

Table 2. Data Description

<table>
<thead>
<tr>
<th>Source</th>
<th>Period</th>
</tr>
</thead>
</table>
Table 2. Continued

<table>
<thead>
<tr>
<th>Measure</th>
<th>Source</th>
<th>Period</th>
</tr>
</thead>
</table>

5. Results

In this chapter, the estimated impulse responses are shown. To mitigate the relatively short time span problem, I try to keep the model as simple as possible. I start with the 2-variable VAR as a benchmark case and focus on the effects of uncertainty on GDP. After that, I present the results with the extended model to seek detailed effects and transmission channels of the uncertainty shock. The 2-variable VAR includes 4 lags of uncertainty index, log of real per capita GDP, and constant term. The choice of lag length is based on LR test and AIC criteria.\(^\text{10}\)

Figure 4 depicts the result from the 2-variable VAR. Panel A is the result with disagreement index and panel B is the result with combined index. In Figure 4, the black solid line is the response of real per capita GDP in the proxy VAR.

---

**Figure 4. Impulse Response of GDP to Government Spending Uncertainty Index: 2-Variable VAR**

Note: The black solid and red dotted line indicate the impulse response of log of real per capita GDP to one unit increasing in government spending policy uncertainty shock in the proxy VAR and recursive VAR, respectively. Shaded area and dashed line indicate 90% confidence bands constructed by the bootstrap method. The y-axis means % change of log of real per capita GDP from the trend. The x-axis means quarters.

Source: Figure by the author.

---

\(^\text{10}\) The results are robust to other time trend assumption such as a linear trend and longer lag length. For the estimation, I use the matlab codes written by Mertens and Ravn (2013). The code can be found in Mertens’ website.
SVAR and the red-dotted line is the response of real per capital GDP in the recursive SVAR model as a benchmark. In the recursive SVAR model, uncertainty index is ordered first. The dashed line and shaded area mean the associated 90% confidence interval computed by the wild bootstrap method following Mertens and Ravn (2013). The size of shock is normalized by one-unit increase and the response of GDP is calculated by % change.

The implications of Figure 4 are two. First, an increase in government spending policy uncertainty shock has a negative effect on GDP and the size of that effect is not negligible. GDP immediately falls around 0.1% (disagreement index) - 0.15% (combined index) after uncertainty shock hits the economy, and this negative effect is statistically significant at least in the short-run. How large is that adverse effect? The combined index rose from 0 to 2.3 due to the debt-ceiling crisis in Q3 2011. Based on the empirical analysis, this surge in policy uncertainty potentially reduced real per capita GDP around 0.3% on impact, which is not negligible. Furthermore, the negative effect is persistent. The 12-quarter-ahead response of GDP still stays in the negative region. Second, the recursive SVAR systematically underestimates the adverse effects of government spending policy uncertainty. The recursive VAR result implies that spending policy uncertainty does not seem to matter. The response of GDP is small and even positive at some horizons. Also, the response of GDP is not statistically significant at all reported horizons. Those results are clearly opposite to the results in the proxy SVAR model. What drives those differences? One potential candidate is the endogeneity bias. Ludvigson et al. (2015) point out the endogeneity issue for the usual recursive SVAR model in studies on uncertainty. They claim that the recursive VAR can be a good starting point but it is not easy to isolate the exogenous part of uncertainty by using a recursive VAR model. Thus the result in the recursive VAR model can be biased because of this endogeneity. However, the proxy SVAR that I employed does not suffer from this endogeneity bias because proxy SVAR isolates exogenous shock by using an exogenous instrument variable, which is defense news in this case, not by ordering assumption in recursive VAR model.
Figure 5. Impulse Response of GDP to Government Spending Uncertainty Index: the extended VAR

Note: The black solid and red dotted line indicate the impulse response of log of real per capita GDP to one unit increasing in government spending policy uncertainty shock in the proxy VAR and recursive VAR, respectively. Shaded area and dashed line indicate 90% confidence bands constructed by the bootstrap method. The y-axis means % change of log of real per capita GDP from the trend. The x-axis means quarters.

Source: Figure by the author.

Figure 5 shows the response of GDP to policy uncertainty shock in the extended VAR. I try to avoid including too many variables in VAR because of a relatively short time span and the problem of over-parameterization. To this end, I estimate the model following Burnside et al. (2004) and Ramey’s (2011) strategy. I use a fixed set of variables and rotating other variables. The fixed set contains five variables: uncertainty index, log of real per capita GDP, log of real per capita consumption, log of real per capita investment, shadow federal fund rate. The first four variables are helpful capturing the responses of private sectors’ behavior and the last variable helps capturing the response of monetary policy. The rotating variables are four: log of labor hour, log of real wage, log of mark-up, and log of GDP deflator. The variables in the VAR are almost the same as in Christiano et al. (2005) and Fernandez-Villaverde et al. (2015) and

---

11 Gertler and Karadi (2015) also use the similar strategy to avoid the over-parameterization and the multi-collinearity.
therefore the results are comparable to Fernandez-Villaverde et al.’s (2015) VAR results. Based on AIC criteria and LR test of the model with fixed set, lag length in VAR is set to 2.

Overall, the results from the extended model seem to be consistent to the results from the simple model. GDP immediately drops around 0.1% and statistically significant on impact. The negative effects are persistent, which is the same as in the 2-variables VAR results. The response of GDP stays in the negative region at all reported long horizons. Furthermore, the results in recursive VAR are not significantly changed even though more variables are added in the model. The recursive VAR with disagreement index shows small and insignificant effects of spending policy uncertainty, which is in contrast to the result with the proxy SVAR model. The model with combined index shows negative response of GDP, but it still underestimates the adverse effects compared with the result with proxy SVAR model.

**Figure 6. Impulse Response of GDP to Government Spending Uncertainty Index: Comparison**

A. 2-variable model

B. The extended model

Note: The black solid and red dotted line indicate the impulse response of log of real per capita GDP to one unit increasing in government spending policy uncertainty shock with the disagreement index and combined index, respectively. Shaded area and dashed line indicate 90% confidence bands constructed by the bootstrap method. The y-axis means % change of log of real per capita GDP from the trend. The x-axis means quarters.

Source: Figure by the author.
Are results different across indexes? Figure 6 shows the results with each index in simple proxy SVAR and extended proxy SVAR. Combined index tends to show larger negative effects on GDP in short-run compared to disagreement index, but that difference is not very large. Furthermore, the models with each index show prolonged negative effects of spending policy uncertainty on GDP. In sum, the implications are clear and the same across indexes: the uncertainty in government spending policy harms economic activity and the size of those negative effects are not negligible.

Figure 7 shows the responses of other variables in the extended system. Although I report only the results with disagreement index for visibility, the results with combined index virtually are not different from those with disagreement. An increase in government spending policy uncertainty reduces output through contraction of private consumption and investment. Private consumption decreases by 1% at maximum. Moreover, this contraction continues for all reported horizons and is statistically significant in the short-run (six quarters). Private investment also drops around 0.5% at maximum. Furthermore, the response of private investment remains in negative region for all reported horizons. Government spending policy uncertainty seems to affect private sectors’ activity negatively as discussed in previous literature. The previous studies suggest that wait-and-see option channel and precautionary saving mainly reduce private investment and private consumption.12

---

12 See Bloom (2009) and Ludvigson et al. (2015).
An increase in uncertainty increases price levels except in the short-run, which implies that it generates future inflation. This is similar to the DSGE predictions in Born and Pfeifer (2014). The monetary authority conducts contractionary monetary policy in response to this future inflation in short-run. Consequently, the response of shadow federal funds rate is positive in short-run, though it is not statistically significant. However, output contraction becomes much larger in longer horizons as shown in Figure 4 and Figure 5 and therefore the monetary authority starts to cut its policy rate to boost output. Thus, the response of shadow federal funds turns negative at some point. La-
bor hours and real wage are decreasing but those responses are not statistically significant. The mark-up, measured by the inverse of labor share in the business sector, drops on impact and stays in the negative region at all reported horizons. Also, the negative response of mark-up is statistically significant in the short-run. Overall, the results imply that an increase in government spending policy uncertainty reduces economic activity in the private sector, including private consumption and private investment. Real wage and labor hours also decrease in response to an increase in government spending policy uncertainty. The shock generates moderate future inflation. The monetary authority increases its policy rate in short-run in response to this future inflation but starts to cut its policy rate to boost the economy soon.
6. Discussion

In this section, I discuss two issues. One is related to the empirical results and the other is policy implications. First, I compare the results in Section 5 with the results in the previous literature. The message from the empirical results is clear: uncertainty in government spending policy reduces output, private consumption, and private investment. This conclusion is similar to Fernandez-Villaverde et al. (2015). They also show that uncertainty about fiscal policy measured time-varying volatility hurts economic activity, though they focus on capital tax policy uncertainty. However, the detailed mechanism is somewhat different. In the VAR model of Fernandez-Villaverde et al. (2015), the responses of real wage and hours are negative but that of mark-up is positive. In their DSGE model, moreover, a rise in mark-up is the central mechanism to validate their VAR results. However, the rise in mark-up in their analysis is completely opposite to the results in Section 5. How should we understand those differences?

One potential candidate to explain this difference is a source-dependent transmission mechanism. Fernandez-Villaverde et al. (2015) focus on capital tax policy uncertainty while I focus on government spending policy uncertainty. It is possible to think that transmission mechanism is different with sources of shocks. In fact, Fernandez-Villaverde et al. (2015) focus on capital tax policy uncertainty because they find that uncertainty about other fiscal instrument including government spending has only small effects in their DSGE model. It potentially means that the transmission mechanisms are different across the type of uncertainty shocks. Therefore, it is worth finding a new transmission mechanism for the government spending policy uncertainty shock in DSGE

---

13 In fact, they say that they focus on capital tax policy uncertainty because the effect of other fiscal uncertainty including government spending uncertainty is small.

14 Also, the DSGE model in Born and Pfeifer (2014) shows a drop of real wage and hours a rise of mark-up.
model. One promising way is to break the tight link between real marginal cost and mark-up in their DSGE model. In their model, the firm follows the Rotemberg pricing rule, which means that the inverse of real marginal cost is equivalent to gross mark-up. Thus, a drop in real marginal cost caused by a drop in real wage is directly linked to a rise in mark-up. Thus, reducing interdependence between real marginal cost and mark-up can be a key to replicate the empirical results in DSGE model.

Additionally, Fernandez-Villaverde et al.'s (2015) baseline DSGE predicts a rise in inflation in response to capital tax policy uncertainty shock. Born and Pfeifer's (2014) DSGE also predicts a rise in inflation in response to the fiscal policy uncertainty shock. This is attributable to firms’ precautionary pricing motives. The result in Section 5 implies that an increase in spending policy uncertainty induces future inflation, which is consistent to Born and Pfeifer (2014) and Fernandez-Villaverde et al.'s (2015) baseline DSGE. However, the response of price level in Fernandez-Villaverde et al.'s (2015) VAR is negative, which implies deflation or disinflation. Thus, they need to modify Taylor-rule in their DSGE to replicate the VAR result, but their modified Taylor rule is not common.

What are the policy implications of the empirical results? The empirical findings support the sizable and prolonged adverse effects of government spending policy uncertainty on economic activity. The government spending policy is one of the most important fiscal instruments in recent days. For example, the American Recovery and Reinvestment Act in 2009 included a $550 billion spending program to boost the depressed economy. Countries in Europe also conducted a government spending program of huge size during the 2008 financial crisis and the Great Recession. Recently, the IMF also emphasizes the role of government spending to boost the depressed global economy. However, uncertainty about future policy paths possibly offsets the stimulus effects of government spending. To mitigate this negative effect, clear communication to the private sector is needed. In the empirical work, I find that defense news,
which can be a forward guidance of the future path of government spending, reduces uncertainty about government spending policy. This means that clear guidance about future government spending paths helps to mitigate the adverse effects of uncertainty. Based on the finding, advance announcements of spending plans are recommended. Moreover, the sources of uncertainty about future fiscal policy are various: skyrocketing government debt and the consequent doubt regarding paying ability, great length of legislative processes, and political conflicts can be possible sources. To enhance the effects of fiscal stimulus program, it is important to control a level of debt and guarantee fiscal health. It is also important to establish clear and simple legislative processes.
7. Concluding Remarks

This paper investigates the adverse effects of government spending policy uncertainty on economic activity using U.S. time series data. To this end, I construct government spending policy uncertainty indexes based on the SPF forecast disagreement measure provided by the Philadelphia Fed and the government spending uncertainty measure provided by Baker et al. (2015). To isolate exogenous variation of uncertainty indexes, I use proxy SVAR developed by Stock and Watson (2008) and Mertens and Ravn (2013) and defense news constructed by Ramey (2011) as an instrumental variable for uncertainty indexes.

The main findings are two-fold. First, an increase in government spending policy uncertainty has negative, sizable, and prolonged effects on GDP, private consumption, private investment. Second, the usual recursive VAR model in literature can suffer from the endogeneity issue. The results with the recursive VAR tends to underestimate the adverse effects of government spending policy uncertainty on the economy. The policy implication is as follows. It is important to mitigate the adverse effect of uncertainty in government spending policies, because one pillar to escape the era of low growth will be the government spending policies in many countries including Korea. One policy suggestion based on the empirical finding is to provide clear announcements of future spending paths.

This paper can be extended in several directions. First, it is worth building theoretical models to support the empirical findings. It is not easy to explain detailed transmission mechanisms in empirical findings with existing models such as Fernandez-Villaverde et al. (2015) and Born and Pfeifer (2014). Thus, building a theoretical model is one of the promising directions to extend this research. Another way is to study the international transmission effects of fiscal policy uncertainty. Recently, some research has focused on international transmission mechanisms of policy spending, but studies on fiscal policy uncertainty are sparse. Through studies on international transmission, important implications for external policies such as trade and exchange rate policy may arise.
Figure A. 1. Defense News and Government Spending Uncertainty Index

Note: Blue line indicates the disagreement index. Gray line means the combined index. Shaded bar means defense news (% of GDP) constructed by Ramey (2011) and updated by Ramey and Zubairy (2014). The combined index starts Q1 1985 due to data availability.

Source: Figure by the author.


<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-09</td>
<td>Comparative Advantage of Value Added in Exports: The Role of Offshoring and Transaction Costs</td>
<td>CHOI Nakgyoon and PARK Soonchan</td>
</tr>
<tr>
<td>16-08</td>
<td>The Effect of Exchange Rate Volatility on Productivity of Korean Manufacturing Plants: Market Average Exchange Rate Regime vs. Free Floating</td>
<td>CHOI Bo-Young and PYUN Ju Hyun</td>
</tr>
<tr>
<td>16-07</td>
<td>To Whom does Outward FDI Give Jobs?</td>
<td>KANG Youngho and WHANG Unjung</td>
</tr>
<tr>
<td>16-06</td>
<td>Labor Market Flexibility and FDI: Evidence From OECD Countries</td>
<td>CHOI Hyelin</td>
</tr>
<tr>
<td>16-05</td>
<td>International Transmission of U.S. Monetary Policy Surprises</td>
<td>KIM Kyunghun, and KANG Eunjung</td>
</tr>
<tr>
<td>16-04</td>
<td>The Impact of Chinese Economic Structural Changes on Korea’s Export to China</td>
<td>SHIN Kotbee and CHOI Bo-Young</td>
</tr>
<tr>
<td>16-03</td>
<td>A Predictive System for International Trade Growth</td>
<td>CHON Sora</td>
</tr>
<tr>
<td>16-02</td>
<td>A Short-term Export Forecasting Model using Input-Output Tables</td>
<td>PYO Hak K. and OH Soo Hyun</td>
</tr>
</tbody>
</table>

A List of all KIEP publications is available at: [http://www.kiep.go.kr](http://www.kiep.go.kr)
16-01 Access to Credit and Quality of Education in Vietnam  
HUR Yoon Sun

LEE Woong

15-02 The Distribution of Optimal Liquidity for Economic Growth and Stability  
PYO Hak K. and SONG Saerang

15-01 Income Distribution and Growth under A Synthesis Model of Endogenous and Neoclassical Growth  
KIM Se-Jik

14-05 Regional Financial Arrangement in East Asia: Policy Proposal for Strengthening the Chiang Mai Initiative Multilateralization  
Pravin Krishna, Jiyoung Choi, and Tae-Hoon Lim

14-04 Labor Market Flexibility and Different Job-Matching Technologies across Regions in India: An Analysis of State-Level Dis-aggregate Matching Functions  
Woong Lee

14-03 Rising Income Inequality and Competition: Evidence  
Minsoo Han

14-02 Inequality and Fiscal Policy Effectiveness  
Ju Hyun Pyun and Dong-Eun Rhee

14-01 Inequality and Growth: Nonlinear Evidence from Heterogeneous Panel Data  
Dooyeon Cho, Bo Min Kim, and Dong-Eun Rhee
본 연구는 미국의 시계열 데이터를 이용하여 재정지출정책의 불확실성이 경제활동에 미치는 영향을 분석하였다. 이를 위해 재정지출정책 불확실성 지수를 구축한 후 도구변수를 사용한 구조적 벡터자기회귀모형(proxy SVAR)을 이용하여 재정지출정책의 불확실성이 경제에 미치는 영향을 추정하였다. 분석결과는 크게 두 가지로 요약된다. 우선 재정지출정책의 불확실성이 증가하는 경우 민간소비와 투자 등 민간경제활동이 상당한 정도로 위축되며, 이러한 부정적인 영향은 상당기간 지속되는 것으로 나타났다. 또한 일반적으로 사용되는 축차구조를 가정한 구조적 벡터자기회귀모형(recursive SVAR)의 경우 내생성(endogeneity) 문제로 인하여 이러한 불확실성이 경제에 미치는 부정적인 영향을 과소평가하는 경향을 보이는 것으로 나타났다.

핵심용어: 수출부가가치, 옵쇼링, 거래비용
김원기(金元基)
미국 Texas A&M University 경제학박사
대외경제정책연구원 구미·유러시아본부 미주팀 부연구위원
(現 E-Mail: wgkim@kiep.go.kr)
저서 및 논문
"Essays on Macroeconomic Aspects of Fiscal Policy"(Ph.D dissertation)
"Do government spending multipliers depend on the level of government debt? US historical data evidence"
KIEP 발간자료회원제 안내

■ 본 연구원에서는 본원의 연구성과에 관심있는 전문가, 기업 및 일반에 보다 개방적이고 효율적으로 연구 내용을 전달하기 위하여 ‘발간자료회원제’를 실시하고 있습니다.

■ 발간자료회원으로 가입하시면 본 연구원에서 발간하는 모든 보고서 및 세미나 자료 등을 대폭 할인된 가격으로 신속하게 구입하실 수 있습니다.

■ 회원 종류 및 연회비

<table>
<thead>
<tr>
<th>회원종류</th>
<th>배포자료</th>
<th>연간회비</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>외부배포 발간물 일체</td>
<td>기관회원 30만원, 개인회원 20만원, 연구자회원* 10만원</td>
</tr>
<tr>
<td>A</td>
<td>East Asian Economic Review</td>
<td>8만원, 4만원</td>
</tr>
</tbody>
</table>

* 연구자 회원: 교수, 연구원, 학생, 전문가급 회원

■ 가입방법
우편 또는 FAX 이용하여 가입신청서 송부 (수시접수)
30147 세종특별자치시 시청대로 370 세종국책연구단지 경제정책동
대외경제정책연구원 자식정보실 학술출판팀
연회비 납부 문의전화: 044) 414-1179 FAX: 044) 414-1144
E-mail: sklee@kiep.go.kr

■ 회원특전 및 유효기간
- S기관회원의 특전: 본 연구원 해외사무소(미 KEI) 발간자료 등 제공
- 자료가 출판되는 즉시 우편으로 회원에게 보급됩니다.
- 모든 회원은 회원가입기간 동안 가격인상에 관계없이 신청하신 종류의 자료를 받아보실 수 있습니다.
- 본 연구원이 주최하는 국제세미나 및 정책토론회에 무료로 참여하실 수 있습니다.
- 연회원기간은 가입Month로부터 다음해 가입Month까지입니다.
<table>
<thead>
<tr>
<th>기관명 (성명)</th>
<th>(한글)</th>
<th>(한문)</th>
</tr>
</thead>
<tbody>
<tr>
<td>대표자</td>
<td></td>
<td></td>
</tr>
<tr>
<td>발간물 수령주소</td>
<td>우편번호</td>
<td></td>
</tr>
<tr>
<td>담당자 연락처</td>
<td>전화</td>
<td>E-mail</td>
</tr>
<tr>
<td></td>
<td>FAX</td>
<td></td>
</tr>
<tr>
<td>회원 소개 (간략히)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>사업자 등록번호</td>
<td>종목</td>
<td></td>
</tr>
</tbody>
</table>

회원분류 (해당란에 ✓ 표시를 하여 주십시오)

<table>
<thead>
<tr>
<th>기 관 회 원 □</th>
<th>개 인 회 원 □</th>
<th>연 구 자 회 원 □</th>
</tr>
</thead>
<tbody>
<tr>
<td>S 발간물 일체</td>
<td>A 계간지</td>
<td></td>
</tr>
</tbody>
</table>

* 회원번호 * 갱신통보사항

(* 는 기재하지 마십시오)

특기사항
The Korea Institute for International Economic Policy (KIEP) was founded in 1990 as a government-funded economic research institute. It is a leading institute concerning the international economy and its relationship with Korea. KIEP advises the government on all major international economic policy issues and serves as a warehouse of information on Korea’s international economic policies. Further, KIEP carries out research by request from outside institutions and organizations on all areas of the Korean and international economies by request.

KIEP possesses highly knowledgeable economic research staff. Our staff includes many research fellows with PhDs in economics from international graduate programs, supported by dozens of professional researchers. Our efforts are augmented by our affiliates, the Korea Economic Institute of America (KEI) in Washington, D.C. and the KIEP Beijing office, which provide crucial and timely information on local economies. KIEP has been designated by the government as its Center for International Development Cooperation and the National APEC Study Center. KIEP also maintains a wide network of prominent local and international economists and business people who contribute their expertise on individual projects.

KIEP continually strives to increase its coverage and grasp of world economic events, and expanding cooperative relations has been an important part of these efforts. In addition to many joint projects in progress KIEP is aiming to become a part of a broad but close network of the world’s leading research institutes. Considering the rapidly changing economic landscape of Asia, which is leading to further integration of the world’s economies, we are confident that KIEP’s win-win proposal for greater cooperation and sharing of resources and facilities will increasingly become standard practice in the field of economic research.

Korea Institute for International Economic Policy
370 Sicheong-daero, Sejong-si, 30147, Korea
Tel: 82-44-414-1171/1251 Fax: 82-44-414-1044
www.kiep.go.kr

The East Asian Economic Review is an economic journal, for the promotion of interdisciplinary research on international economics. Published as a quarterly by the Korea Institute for International Economic Policy, a Korean government-funded economic think-tank, the Journal is global in perspective and covers both theory and empirical research. The Journal aims to facilitate greater understanding of all issues pertinent to diverse economies of East Asia through publication of rigorous analyses by renowned experts in the field. The EAER connects policy and theory, providing empirical analyses and practical policy suggestions for the economies in the region.

Call for Papers for the East Asian Economic Review

With great pleasure, the East Asian Economic Review is welcoming submissions.

AIMS and SCOPE

The East Asian Economic Review is an economic journal, for the promotion of interdisciplinary research on international economics. Published as a quarterly by the Korea Institute for International Economic Policy, a Korean government-funded economic think-tank, the Journal is global in perspective and covers both theory and empirical research. The Journal aims to facilitate greater understanding of all issues pertinent to diverse economies of East Asia through publication of rigorous analyses by renowned experts in the field. The EAER connects policy and theory, providing empirical analyses and practical policy suggestions for the economies in the region.

TOPICS COVERED

The East Asian Economic Review brings together articles from many different realms of economics at both regional and global levels. Issues relevant to East Asia’s diverse economy are the major focus. Specific areas of interest include, but are not limited to:

- Trade and Investment Issues
- Economic Integration
- APEC
- ASEAN
- ASEM
- International Finance
- Liberalization of Financial Services and Capital
- International Cooperation for Korean Unification

AWARD FOR EAER

The East Asian Economic Review Award is given annually to articles that have made exemplary contributions to advance the public as well as academic understanding of international economics. Every article published in the journal is given an honorarium of KRW 2,500,000, and annual nominations for the outstanding and noteworthy articles include KRW 5,000,000 prize and a detailed nomination statement describing how the selected papers have contributed to the knowledge of international economics.

NOTE FOR AUTHORS

SUBMISSION GUIDELINE:
Refer to our website www.eaerweb.org and Click “Submission” at the top of the main page.

SUBMISSION DEADLINE:
The journal is published every March, June, September and December of each year and submissions are accepted for review on an ongoing basis (no specific deadline).

REVIEW PROCESS:
We have introduced a “fast-track” system, which takes four to five weeks on average from submission to the first round review in order to provide quick and authoritative decisions to the authors. In general, the journal’s manuscript decision process includes submission, editorial decision on whether the paper should be reviewed, peer review, decisions after review, revision, acceptance in principle, final submission and acceptance, proofs, advance online publication, and print publication.

For further information regarding submission, Contact EAER Editorial Office:
Tel: 82-44-414-1171/1251 Fax: 82-44-414-1044
Email: eaer@kiep.go.kr
Website: www.eaerweb.org

Price USD 3
In this paper, I empirically examine the effects of uncertainty about government spending policy on economic activity using U.S. time series data. To this end, I constructed government spending policy uncertainty indexes and estimate a proxy SVAR model. The proxy SVAR model with constructed indexes shows that an increase in government spending policy uncertainty has negative, sizable, and prolonged effects on economic activity. Moreover, the results imply that the commonly adopted recursive SVAR model in literature on policy uncertainty systematically underestimates the adverse effect of government spending policy uncertainty because of the endogeneity issue.